



California Regional Water Quality Control Board

Santa Ana Region



Alan C. Lloyd Ph.D.
Agency Secretary

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Arnold Schwarzenegger
Governor

August 29, 2005

Ms. Pei-Fen Tamashiro
Installation Restoration Coordinator
Naval Weapons Station, Seal Beach
800 Seal Beach Blvd.
Seal Beach CA 90740-5000

COMMENTS ON REMEDIAL DESIGN OPTIMIZATION WORK PLAN FOR IR SITE 70 AND POTENTIAL EFFECTS OF ELECTRON DONOR ADDITION AND BROMIDE TRACER TEST ON GROUNDWATER TDS CONCENTRATIONS AT IR SITE 70, U. S. NAVAL WEAPONS STATION, SEAL BEACH

Dear Ms. Tamashiro:

We have completed our review of the above-referenced documents: the work plan, dated August 1, 2005 which we received on August 9, 2005 and the technical memorandum, dated August 17, 2005, which we received on August 17, 2005. Your contractor is proposing to inject emulsified vegetable oil (EVO) into the groundwater to use as the electron donor to stimulate bioremediation of the trichloroethylene. A pilot test will be conducted to determine the radius of influence of the EVO around the injection well in each aquifer unit, appropriate injection rates and the impact that the EVO will have on the soil permeability. In addition, the work plan proposes the use of a bromide tracer to evaluate the lateral distribution of the injected EVO fluid in order to determine appropriate spacing between injection wells.

We do not object to the injection of EVO into the groundwater at this site, as proposed in the work plan. We also concur with the use of a bromide tracer to evaluate the lateral distribution of the injected EVO fluid in order to determine appropriate spacing between injection wells. The possibility of additional injections of EVO at this site will be subject to our approval, following our review of the pilot test results.

If you should have any questions, please call me at (951) 782-4498, or send e-mail to phannon@waterboards.ca.gov.

Sincerely,

Original signed by

Patricia A. Hannon
SLIC/DoD Section

cc via electronic copy:

Ms. Katherine Leibel, Dept of Toxic Substances Control
Mr. Si Le, Naval Facilities Engineering Command, SWDIV
Mr. Slader Buck, Seal Beach National Wildlife Refuge
Mr. Walt Grinyer, GeoSyntec Consultants

California Environmental Protection Agency